UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,532	06/25/2003	Michael Joseph Pizzo	13768.402	4133

47973 7590 10/03/2006

WORKMAN NYDEGGER/MICROSOFT
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UT 84111

EXAMINER	
PONIKIEWSKI, TOMASZ	

ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/603,532	PIZZO ET AL.	
	Examiner	Art Unit	
	Tomasz Ponikiewski	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 36-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11, 36-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. The Amendment filed on July 12, 2006 has been received and entered. Claims 12-35 have been canceled. Therefore, claims 1-11 and 36-38 are now pending.

2. Applicant's amendment has overcome previous claim objections and rejection under 112 2nd and 101.

Claim Objections

Claim1, and 36 objected to because of the following informalities:

Claims 1, and 36 recite the word "for efficient generation" in the body of the claims. It indicates intended use and as such does not carry patentable weight. The word could be changed to recite "to efficiently generate" or " that efficiently generates". The limitations following the phrase "for" describes only intended use but not necessarily required functionality of the claim. Limitations following the phrase "for" do not carry patentable weight, which cause the claims to appear as a series of non-functional descriptive material/data without any functional relation with each other. Applicant is required to amend the claims so that the claim limitations are recited in a definite form.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-2, 4, 7, 9-11 and 26-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al. (U.S. 6,493,720 B1) in view of Amiri et al. (US 2004/0133538 A1).

As per claim 1 Chu et al. is directed to a computer system that accesses a database having one or more data tables, the computer system configured to provide content from the database to a Web server for inclusion in Web based responses to requests for Web based content, a method for configuring the database to provide a table change notification when content in one of the data tables relevant to the Web server is altered, the method comprising the following:

an act of selecting a data table that is to be monitored for content changes, the selected data table selected from among the one or more data tables of the database, the selected data table providing cacheable content to the Web server for efficient generation of Web responses to Web based requests for content (Chu et al., column 3, lines 52-55, wherein "data table" means "file manager, ...,or a database system");

an act of assigning a trigger to the selected data table, the trigger configured to update the versioning information included in the record when content in the selected

data table is altered (Chu et al., column 7 lines 60-61, wherein "trigger" means "schedule");

an act of updating the versioning information in the change notification table in response to a portion of content in the selected data table being altered (Chu et al., column 7, lines 48-51);

Chu et al. does not teach an act of inserting a record for the selected data table into a change notification table, the corresponding record including versioning information for the selected data table, the versioning information used to determine when a cache entry at the Web server is valid, the cache entry containing cacheable content from the selected data table for inclusion in Web responses.

Amiri et al. teaches an act of inserting a record for the selected data table into a change notification table, the corresponding record including versioning information for the selected data table, the versioning information used to determine when a cache entry at the Web server is valid, the cache entry containing cacheable content from the selected data table for inclusion in Web responses (Amiri et al., page 5, paragraph 0070, lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Chu et al. by teachings of Amiri et al. to include an act of inserting a record for the selected data table into a change notification table, the corresponding record including versioning information for the selected data table, the versioning information used to determine when a cache entry at the Web server is valid, the cache entry containing cacheable content from the selected data table for inclusion

in Web responses because cache allows less processing overhead. (see Amiri et al., page 5, paragraph 0070, lines 19-20).

Chu et al. as modified still does not teach an act of sending the updated versioning information to the Web server such that the updated versioning information is used to determine the validity of the cacheable content in the cache entry at the Web server.

Amiri et al. teaches an act of sending the updated versioning information to the Web server such that the updated versioning information is used to determine the validity of the cacheable content in the cache entry at the Web server (Amiri et al., page 5, paragraph 0070, lines 11-17)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further modify Chu et al. as modified by teachings of Amiri et al. to include teach an act of sending the updated versioning information to the Web server such that the updated versioning information is used to determine the validity of the cacheable content in the cache entry at the Web server because cache allows less processing overhead. (see Amiri et al., page 5, paragraph 0070, lines 19-20).

As per claim 2 Chu et al. as modified is directed to the act of selecting a data table that is to be monitored for content changes comprises an act of receiving user-input that causes the computer system to select a data table is to be monitored for content changes (Chu et al., column 7, lines 33-36).

As per claim 4 Chu et al. as modified is directed to the act of inserting a record for the selected data table into a change notification table compromises an act of inserting the record in response to user-input (Chu et al., column 7, lines 14-16, wherein "inserting" means "registering").

As per claim 7 Chu et al. as modified is directed to the act of assigning a trigger to the selected data table comprises an act of receiving user input instructing a trigger to be assigned to the selected data table (Chu et al., column 7 lines 60-61, wherein "trigger" means "schedule").

As per claim 9 Chu et al. as modified is directed to the act of assigning a trigger to the selected data table comprises an act of the assigning a trigger that, when executed by a processing unit at the computer system in response to content in the selected data table being altered, will update a corresponding change ID in the table change notification table (Chu et al., column 7, lines 42-46).

As per claim 10 Chu et al. as modified is directed to the act of updating the versioning information in the change notification table in response to content in the selected data table being altered comprises an act of executing the trigger (Chu et al., column 7, lines 42-46).

As per claim 11 Chu et al. as modified is directed to the act of sending the updated versioning information to the Web server comprises an act of sending updated versioning information that indicates to the Web server that the cache is to be invalidated (Chu et al., column 6, lines 14-19; Chu et al., column 6, lines 42-46, Chu et al., column 9, lines 22-25).

As per claim 36 Chu et al. is directed to a computer program product executed at a computer system that access a database having one or more data tables, the computer system configured to provide content from the database to a web server for inclusion in Web based responses to requests for Web based content, the computer program product implementing a method for configuring the database to provide a table change notification to the Web server when data in one of the data tables relevant to the Web server is altered, the computer program product comprising one or more computer-readable storage media having stored thereon computer executable instructions that, when executed by a processing unit, implement the method including the following:

select a data table that is to be monitored for data changes , the selected data table selected from among the one or more data tables of the database, the selected data table providing cacheable content to the Web server for efficient generation of Web responses to Web based requests for content (Chu et al., column 3, lines 52-55, wherein "data table" means "file manager, ..., or a database system");

assign a trigger to the selected data table, the trigger configured to update the versioning information in the record when data in the selected data table is altered (Chu et al., column 7 lines 60-61, wherein "trigger" means "schedule");

update the versioning information in the change notification table in response to a portion of content in the selected data table being altered (Chu et al., column 7, lines 48-51);

Chu et al. does not teach insert a record for the selected data table into a change notification table, the record including versioning information for the selected data table the versioning information used to determine when a cache entry at the Web server is valid, the cache entry containing cacheable content from the selected data table for inclusion in Web responses.

Amiri et al. teaches insert a record for the selected data table into a change notification table, the record including versioning information for the selected data table the versioning information used to determine when a cache entry at the Web server is valid, the cache entry containing cacheable content from the selected data table for inclusion in Web responses (Amiri et al., page 5, paragraph 0070, lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Chu et al. by teachings of Amiri et al. to include insert a record for the selected data table into a change notification table, the record including versioning information for the selected data table the versioning information used to determine when a cache entry at the Web server is valid, the cache entry containing cacheable content from the selected data table for inclusion in Web responses because

cache allows less processing overhead. (see Amiri et al., page 5, paragraph 0070, lines 19-20).

Chu et al. as modified still does not teach send the updated versioning information to the Web server such that the updated versioning information is used to determine the validity of cacheable content in the cache entry at the Web server.

Amiri et al. teaches send the updated versioning information to the Web server such that the updated versioning information is used to determine the validity of cacheable content in the cache entry at the Web server (Amiri et al., page 5, paragraph 0070, lines 11-17)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further modify Chu et al. as modified by teachings of Amiri et al. to include teach send the updated versioning information to the Web server such that the updated versioning information is used to determine the validity of cacheable content in the cache entry at the Web server because cache allows less processing overhead. (see Amiri et al., page 5, paragraph 0070, lines 19-20).

As per claim 37 Chu et al. as modified is directed to the one or more computer-readable storage media are physical media (Chu et al., column 2, lines 49-50).

As per claim 38 Chu et al. as modified is directed to the one or more computer-readable storage media include system memory (Chu et al., column 2, lines 46-56).

5. Claims 3, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al. (US 6,493,720 B1) in view of Amiri et al. (US 2004/0133538 A1) and further in view of Jim Challenger, Arun Iyengar, Paul Dantzig "A scalable system for Consistently Caching Dynamic Web Data", (from here on referred as Challenger et al.)

As per claim 3 Chu et al. as modified still does not teach the act of selecting a data table that is to be monitored for content changes comprises an act of the computer system automatically selecting a data table in response to a received Web request.

Challenger et al. does teach the act of selecting a data table that is to be monitored for content changes comprises an act of the computer system automatically selecting a data table in response to a received Web request (page 300, column 1 last paragraph, lines 4-8, wherein the system is aware of only “athlete page” being imputed hence that is table selected).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further modify Chu et al. as modified by teachings of Challenger et al. to include the act of selecting a data table that is to be monitored for content changes comprises an act of the computer system automatically selecting a data table in response to a received Web request because automation is more efficient use of resources (see Challenger et al. abstract).

As per claim 5 Chu et al. as modified still does not teach the act of inserting a record for the selected data table into a change notification table compromises an act of the computer system automatically inserting the record in response to a Web request.

Challenger et al. does teach the act of inserting a record for the selected data table into a change notification table compromises an act of the computer system automatically inserting the record in response to a Web request (page 301, column 1, lines 24-27; column 2, lines 9-10, wherein "inserting" means "adding")

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further modify Chu et al. as modified by teachings of Challenger et al. to include the act of inserting a record for the selected data table into a change notification table compromises an act of the computer system automatically inserting the record in response to a Web request because automation is more efficient use of resources (see Challenger et al. abstract).

As per claim 8 Chu et al. as modified still does not teach the act of assigning a trigger to the selected data table comprises an act of the computer system automatically assigning a trigger in response to receiving a Web request for content contained in the selected data table.

Challenger et al. does teach the act of assigning a trigger to the selected data table comprises an act of the computer system automatically assigning a trigger in response to receiving a Web request for content contained in the selected data table (page 301, column 1, section "3.5 The Trigger Table").

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further modify Chu et al. as modified by teachings of Challenger et al. to include the act of assigning a trigger to the selected data table comprises an act of the computer system automatically assigning a trigger in response to receiving a Web request for content contained in the selected data table because automation is more efficient use of resources (see Challenger et al. abstract).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al. (US 6,493,720 B1) in view of Amiri et al. (US 2004/0133538 A1) and further in view of Dettinger et al. (US PUB 2003/0093413 A1).

As per claim 6 Chu et al. as modified still does not teach the act of inserting a record for the selected data table into a change notification table compromises an act of inserting the record into a SQL table.

Dettinger et al. does teach the act of inserting a record for the selected data table into a change notification table compromises an act of inserting the record into a SQL table (Dettinger et al. page 4, paragraph 0036, lines 11-13).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further modify Chu et al. as modified by teachings of Dettinger et al. to include inserting a record into a SQL table because SQL language is most commonly used in databases.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tomasz Ponikiewski whose telephone number is (571)272-1721. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (571)272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tomasz Ponikiewski
September 22, 2006

JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100